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REPORT



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19. ABSTRACT (Continue on reverse if necessary and identify by block number)				
This POP report is for the M9 and M13 tracer which are packaged 1600 tracers per MIL-B-2427 wood box. This report describes the results of testing conducted on a similar packaging which issued as an analogy for these items.				
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II. TITLE: Performance Oriented Packaging Report for M9 and M13 Tracers

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PERFORMING ACTIVITY: ARDEC

ADDRESS: Department of the Army
ARDEC, SMCAR-AEP
HQ, U.S. Army Armament, Munitions, and Chemical Command
Picatinny Arsenal, NJ 07806-5000

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1. DATA SHEET

CONTAINER

Type: Box
UN Code: 4C1
Nomenclature: BOX, PACKING, AMMO, FOR TRACER M9 AND M13
Specification Number: Type I, Grade C, Class 1, Mil-B-2427
Drawing Number: 8836134
Material: Wood
Gross Weight: 79 pounds
Outside Dimensions: 24 7/8" x 13 3/32" x 11 17/32"
Inside Dimensions: 21 3/4" x 11 17/32" x 9 3/16"

PRODUCT

Name: M9 and M13 Tracers
Drawing Number: N/A
United Nations Number: Various
Physical State: Solid
Amount per Container: 1600 - Tracers

2. BACKGROUND, TESTS, AND RESULTS

Reference the following document:
a. 49 CFR, October 1, 1993 Edition

Instead of testing the specific container used for the M9 and M13 Tracer, three wooden boxes built to the same specification were tested.

Gross Weight: 150 pounds
Outside Dimensions: 26 1/4" x 14 3/8" x 12 3/4"
Inside Dimensions: 23 1/8" x 11 3/4" x 10 11/16"

This falls within the guidelines for analogy IAW Variation III of paragraph 178.601(g)(3) of Reference a.

A stacking Test was conducted on one container with a weight of 1600 pounds for 72 hours in lieu of three containers for 24 hours each. This weight exceeds the minimum requirement for a 10 foot stack height which 1412 pounds.

A Loose Cargo Test was conducted on three containers for one hour. The packages were tested at a vibration table frequency such that the bottom of the packages were raised 1/4" from the platform, which exceeds the requirement of 1/16".

A Four Foot Drop Test was conducted on one of the containers that were subjected to the Loose Cargo Test. One container was dropped five times at four feet covering the following orientations: top, bottom, long side, short side, and a top corner at the closure. This exceeds the requirement of one drop per container.

Test results indicated no leakage or spillage of the contents from the containers following any of the tests conducted, meeting the requirements of the 49 CFR.